

Fish Use of Stream Drainage Basins in the City of Bellevue

April 2009

Background and Data Sources

Current knowledge of the species of fish in Bellevue's streams and their distribution is based on stream typing work conducted in the summer of 2001 (The Watershed Company 2001) that involved assessing culverts as to whether fish could pass upstream and electrofishing; an electrofishing survey conducted at five sites in the Kelsey Creek basin in 2007 (City of Bellevue, unpublished data) and fish moved prior to sediment removal from two sediment ponds along Coal Creek (The Watershed Company 2007a); salmon spawning surveys conducted annually during the fall between 2001 and 2008 (Taylor Associates 2002; The Watershed Company 2003, 2004, 2005, 2006, 2007b, 2009); and peamouth surveys and spawning observations conducted by Bellevue staff and volunteers between the late 1990s and 2008 (City of Bellevue, unpublished data). Lake Washington shore use by warm water fish was documented by Washington Department of Fish and Wildlife in June of 2005 (Personal Communication, Chad Jackson, July 18, 2007). Fish use of the lake shore along Lake Sammamish has not been documented by the City of Bellevue.

Lewis Creek Basin

Present use of Lewis Creek (08-0162) by anadromous and migratory fish is confined to the section downstream (north) of I-90 because the culvert under I-90 is impassible. Migratory cutthroat trout, coho and sockeye salmon, and late-run kokanee have been observed in this reach (Ostergaard 1998; Vanderhoof et al. 2000). Chinook salmon are not mentioned in the historical record for Lewis Creek. While six adult chinook salmon were seen in lower Lewis Creek in 1995, no chinook were found in the 1994 surveys, and none were seen in the stream during surveys between 1996 and 2000 (O'Laughlin 2000). The absence of chinook in historical record and in the stream in years between 1996 and 2000, the proximity of Lewis Creek to the Issaquah Hatchery, and the frequent rate of hatchery fish straying to spawn in streams other than where they originated (Berge et al. 2006) make it likely that those seen in Lewis Creek in 1995 may have been hatchery strays.

Above I-90, Lewis Creek supports fish populations along the main stem almost to Village Park Dr. SE, where cutthroat trout have been found in large numbers. Mainstem habitat above that point is insufficient to support fish. Of the many tributaries to Lewis Creek, fish were found only in the tributary near SE 47th Way. The lower part of this segment contained multiple age classes of cutthroat trout. All other tributary segments clearly do not have sufficient flows to support fish.

See Bellevue's Basin Fact Sheet main web page for additional fish use information for Bellevue streams.

References Cited

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